

Claim Listing

1. (currently amended) A method of inducing an immune response in a bird against *Campylobacter*, comprising administering, *in ovo*, during the final quarter of incubation, an immunizing effective amount of live cells of a *Campylobacter* species, wherein said live cells are free of neutralizing antibodies or neutralizing antibody fragments.
2. (original) The method of claim 1, wherein said bird is a domesticated bird.
3. (original) The method of claim 2, wherein said domesticated bird is selected from the group consisting of a chicken, a turkey, and a duck.
4. (original) The method of claim 1, wherein said species of *Campylobacter* used in the administration is selected from the group consisting of *C. jejuni*, *C. coli*, and *C. lari*.
5. (previously presented) A method of inducing an immune response in a bird against *Campylobacter*, comprising administering, *in ovo*, during the final quarter of incubation, an immunizing effective amount of live cells of more than one species of *Campylobacter*.
6. (original) The method of claim 1, wherein the live cells are wild type or have been modified genetically.
7. (original) The method of claim 6, wherein a heterologous polynucleotide sequence has been introduced into the live cells of *Campylobacter*.
8. (previously presented) The method of claim 7, wherein said heterologous polynucleotide sequence encodes a protein essential in colonization of a domesticated bird by *Campylobacter*.
9. (original) The method of claim 7, wherein said heterologous polynucleotide sequence encodes an antigen from a virus, bacteria, or parasite that causes disease in a domesticated bird.
10. (original) The method of claim 7, wherein said heterologous polynucleotide sequence encodes an antigen from an organism that causes food-borne illness in humans.
11. (original) The method of claim 7, wherein said heterologous polynucleotide sequence encodes a protein that enhances the growth or feed efficiency of a

domesticated bird.

12. (previously presented) The method of claim 7, wherein said heterologous polynucleotide sequence encodes a protein that stimulates the bird's immune system.
13. (original) The method of claim 1, further comprising administering a veterinary-acceptable carrier.
14. (original) The method of claim 13, wherein said veterinary-acceptable carrier is combined with the live cells of *Campylobacter* prior to *in ovo* administration.
15. (original) The method of claim 13, wherein said veterinary-acceptable carrier is administered to the bird in feed or water, or by aerosol spray, at any time after hatching.
16. (previously presented) The method of claim 14, wherein said veterinary-acceptable carrier is an adjuvant.
17. (previously presented) The method of claim 16, wherein said adjuvant has an immune-stimulating activity.
18. (original) The method of claim 1, wherein live cells of *Campylobacter* are combined with at least one other immunogen selected from a viral, a bacterial or a protozoan immunogen.
19. (previously presented) The method of claim 15, wherein said veterinary-acceptable carrier is an adjuvant.
20. (previously presented) The method of claim 19, wherein said adjuvant has an immune-stimulating activity.